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ART. V.—*Report of a General Plan for the Promotion of Public and Personal Health, devised, prepared, and recommended by the Commissioners appointed by the Legislature of Massachusetts, relating to a Sanitary Survey of the State.* Boston: Dutton & Wentworth, State Printers. 1850. 8vo. pp. 544.

THE character and purpose of sanitary science are such, that every one is directly interested in diffusing a knowledge of it as widely as possible. It does not, like medical science, offer to cure diseases, but aims to prevent them. It is based upon well-observed and accurately-recorded facts. Drawing its inferences from a careful observation of the lamentable results of the actual mode of life, both of communities and individuals, it does not present a new theory of living, but points out the evils which may be avoided, and the advantages which may be gained by obedience to sanitary laws. It is no vague project for lengthening the natural term of life. It holds out no promise of an earthly immortality, or of an existence which shall be reckoned by centuries. Its only promise is to remove whatever artificially curtails or saddens our mortal life. When the old pass away, we are sad, but not comfortless. "Some natural tears are shed," as we receive their parting blessing; but we have faith, even amidst our tears, that it is a merciful dispensation which calls them to another life. But it is not so when infancy dies, or when youth and manhood perish by the roadside. When the silver cord is loosed before the music of the harp has been heard; when the golden bowl is broken before the waters of life have filled it, then our hearts are desolate and refuse to be comforted. It is the death of the young, the premature blighting of the flower in the bud, which, more than any other affliction, requires for its consolation the exercise of the highest Christian faith. The instincts of nature refuse to believe, that because such trials are permitted by the Great Disposer of life, they were therefore intended always to exist. From the details of sanitary science, from the forbidding statistical columns of Health Returns and Registration Reports, we learn the comforting lesson, that these saddest of all afflictions are owing more to the transgressions of man than to the

decrees of Providence. Thousands die annually before their time, and tens of thousands waste much of their lives on beds of sickness, not by the inscrutable purposes of their Creator, but because the noisome atmosphere of uncleanness, disease, and death has been allowed to gather and float about them, till the lamp of life has gone out.

Sanitary improvement is now generally recognized in Europe as one of the great reform movements of the day. It has attained this position more on account of its intrinsic importance, than from the exertions of its friends. It is much indebted to the efforts of a few persevering and philanthropic men, like Mr. Chadwick and Mr. Southwood Smith; but it has chiefly commended itself to public notice through the magnitude of the interests which it affects. In Europe, and particularly in France, Germany, and England, it has attracted considerable attention and accomplished much good. It is regarded, not merely as an auxiliary, but as an indispensable prerequisite, to any attempt for the general and permanent elevation of the poorer classes. In this country the sanitary movement is less known. Our readers are doubtless familiar with its name, though it has not yet assumed before the community the importance which rightfully belongs to it. We trust, however, that the Report of the Sanitary Commission of Massachusetts will do much towards creating a more enlightened public sentiment upon the subject.

We do not propose at the present time to give a history of the sanitary movement, or even an exposition of the principles upon which it is founded. Our object is to present, as briefly as possible, a few of the most important facts, which form at once the basis of sanitary science, and the most urgent reasons for sanitary reform.

Pure air, exercise, and cleanliness, have been recognized since the days of Hippocrates as indispensable to soundness of body and length of years. But until very lately, there have been no data by which to estimate, with any degree of exactness, the enormous waste of life and health, which result from the privation and insufficient supply of these essential conditions of physical existence. The labors of the Registrar-General in England, and of the Bureaus of Health in France and Germany, have at length supplied this defect, so far as those countries are concerned. Their Registration

Reports do not contain merely a barren enumeration of each year's births, marriages, and deaths. They present accurately-recorded observations, in every case, of the date and cause of death, and also of the occupation, age, sex, habitation, and locality of those who have died. It is from these Reports, which contain the actual sanitary history, not of a single community, but of millions of individuals, and which now embrace a series of years, that we are enabled to ascertain the comparative healthiness of different classes and occupations in society, and to compare the mortality of different cities with each other, and with that of the country. With these Reports before us, it is easy to eliminate the unnecessary, from the inevitable, causes of disease and death ; and thus to show how sickness may be avoided and human life prolonged.

Let us look at some of the facts with regard to this matter. In the first place, there is an annual, needless sacrifice of human life in this country and in Europe, which is great enough to stagger belief. The English Registration Reports show that two per cent., or one death to every fifty inhabitants, is the annual average mortality for the healthy districts of England. In a large proportion of the districts, (nearly one half of the whole number,) the average rate is somewhat less than this. These districts do not exhibit this low ratio of mortality merely because they are rural. They contain towns and cities, whose population varies from ten to forty thousand inhabitants. Even in Birmingham, a manufacturing town with a population of 140,000, the average mortality, according to the authority of an intelligent writer in the *British and Foreign Medical Review* for January, 1848, is less than two per cent. Thus it appears from actual observation, that in nearly one half of England, in towns as well as in the country, the rate of mortality is two per cent., or less. In the other parts of England, which, in a sanitary point of view, differ from these only in circumstances that are removable, the ratio is much greater. According to the writer just quoted, the annual mortality in Birmingham is one in 50.63 of the population, or less than two per cent. In London, it is one in 39.10 ; in Sheffield, one in 29.28 ; in Liverpool, one in 34.92 ; in Leeds, one in 35.44 ; in Manchester, one in 39.93. In the whole of England, it is one in 45.8, or 2.18 per cent. A glance at these figures is enough to show

an appalling waste of human life. There is no reason why these last named towns should have a sanitary condition inferior to that of Birmingham ; and, *a fortiori*, the mortality of the United Kingdom ought not to be greater. It has, in fact, been proved that the rate of mortality for the whole kingdom might be reduced, by proper sanitary regulations, to less than two per cent., — the rate of Birmingham and of nearly half the districts of England. If this were the case, there would be a saving of the excess above that rate, which would amount annually to more than 50,000 lives in Great Britain alone. Surely, such a sacrifice of life should arouse the attention of every philanthropist.

The Registration Reports of Massachusetts, imperfect as they are, show that the amount of unnecessary sickness and the waste of life are proportionally as great in New England, as among our Transatlantic brethren. We learn from the Report of the Sanitary Commission, that the average rate of mortality, during a period of ten years, in three country towns of New England, was one in 67 of the inhabitants, or 1.49 per cent. This agrees very nearly with the healthiest English district. In Boston, according to the City Registrar's Report, the average rate for the ten years ending with 1850 inclusive was one in 41, or 2.43 per cent. For the year 1849, when the cholera prevailed, it was as high as one in 26, or 3.84 per cent. For the last half of this decade, the rate was one in 34, or 2.94 per cent. This is nearly one per cent. greater than the mortality of Birmingham with all its smoke, and dirt, and manufactories ; and but little less than the average mortality of Liverpool, one of the unhealthiest cities in England. Observation has shown, as we have stated, that the average rate of mortality in any community need not exceed two per cent. If the number of deaths in Boston had been kept at this standard for the last ten years, by proper sanitary regulations, there would have been in this city a saving of more than 1,100 lives annually. What an amount of anguish and grief might have been averted, how many hearts might have been saved from desolation, and families from gloom, and homes, how often, from poverty and misery, if the hand of the destroying angel had been so often stayed !

The waste of life in our large towns may be seen in a still

more striking manner, by comparing different sections of the same city with each other. For this purpose, let us make a comparison of three different sections of Boston. We are enabled to do this with considerable exactness through the kindness of Mr. Simonds, the City Registrar. Compare, for example, the mortality of the population for the year 1850, on Beacon Hill, with that of the inhabitants of what is called "the Back Bay," and of those who dwell along the wharves, in Broad, Sea, and Cove Streets. We give the population of these sections as set down in the city census report for the same year.

The first section which we have selected comprises the portion between Beacon and Pinckney Streets inclusive, extending from the State House to Charles Street. Belknap and West Cedar Streets were not included. This section of the city is all high land and thoroughly drained by nature. The houses are large and well ventilated. The inhabitants belong to the upper classes of society, and in England would be denominated the "gentry." The population of this district is 2615. Of this number, 2054 are Americans, and 561 foreigners. Most of the latter class are probably domestics in the families of the former. The number of deaths in this section for 1850 was only 35; this is one in 74.7 of the inhabitants, or 1.3 per cent. In Herefordshire, one of the healthiest districts of England, the rate of mortality is about one in 68.49. In the country towns of New England, cited above, it is one in 67. Thus the Beacon Hill district of Boston exhibits a more favorable rate of mortality than either of these rural localities. We should be careful, however, not to draw a too hasty conclusion from this statement. The year 1850 was one of unusual health in Boston. Moreover, many of the inhabitants of this district spend a considerable portion of each year out of the city, and doubtless several deaths occurred, during their absence, which are not included in the enumeration. It would therefore be a nearer approximation to the actual mortality to assume one in 67, or the rate of the country towns, just cited, as the rate of the Beacon Hill district. Even this is much more favorable than the standard of two per cent., or one in 50, to which sanitary science has shown the mortality of every community may be reduced.

The next section is that upon "the Back Bay." It contains the district which is included between Pleasant Street and the marsh, and extends from the Providence Railroad station to West Orange Street. It is composed entirely of newly made land. The streets are narrow, the sewerage and drainage are imperfect. The houses are small, and built around alleys as well as upon streets. The population is 5121. Of this number, 1348 are foreigners, and 3773 Americans. The native inhabitants are mostly tradespeople and mechanics. They are intelligent, and are as attentive to the known laws of hygiene as the average of any community. Here the mortality was one in 52.7 of the inhabitants, or 1.9 per cent. This rate is much higher than that of the first district, and nearly equal to the mortality of Birmingham. It is not, however, a large mortality, and is a close approximation to the standard of two per cent. If the year had been sickly, the rate would have been considerably increased.

Let us now look at the last district selected for comparison. It comprises Broad, Cove, and Sea Streets. These streets are situated near the wharves. They are built principally upon made land, and have numerous blind alleys, or *cul-de-sacs*, leading from them. The streets and alleys are badly drained, and crowded with an overflowing population. A large number of the houses have no means of sewerage whatever, and all their refuse of every description stagnates about the yards, spreading on every side poisonous exhalations, laden with disease and death. A majority of the houses contain several families, and some of them have no less than nine or ten. Even the cellars of the houses are often inhabited. In some instances, one cellar leads to another, and this to a third, a sort of dungeon, all inhabited by human beings of both sexes and every age. The population of these three streets was 2813, of whom 2738 were foreigners, and only 75 Americans. The mortality was *one in 17.6 of the population*, or 5.65 per cent., and this in a year remarkable for its healthiness. What it would have been in a sickly year, we dare not conjecture. There are but few instances on record of a mortality like this, in any community, except during the visitation of a pestilence or an epidemic. Doubtless, the habits of the people, their excesses and inattention to personal cleanliness, or rather fondness for filth, contributed

to swell the mortality. But after making all due allowances, there remains an appalling per centage of death. If one in every seventeen and a half of the population in those streets is doomed to death annually, a fearful responsibility will rest upon the community until such pestiferous abodes are purified. The pestilential atmosphere of the spot will spread, and contaminate the healthier districts of the town. All must suffer for the neglect and indifference with which such abodes are regarded. No community can have so fearful a plague spot near it with impunity.

It appears, then, that the mortality of the whole of Boston and of several of its districts presents the following contrasts. The rate for the whole city (omitting decimals) is one in 38 of the inhabitants. For the Beacon Hill district, it is one in 74 ; for the Broad Street district, one in 17 ; and along "the Back Bay," one in 52. We were at first inclined to regard these figures as an exaggeration. We could not believe that a portion of Boston is annually almost decimated of its population. But a careful reëxamination has confirmed the accuracy of the statement. We are told a great deal of the contrasts of European life. We have heard much of famine in the midst of plenty ; of splendor set off by squalid misery ; of abject wretchedness showing its gaunt and deformed features by the side of ease and luxury. Undoubtedly this is true. We can bear personal testimony to the accuracy of the picture. And yet we can recall, neither from our own observation nor from the statements of others, any contrasts of life, (not even in London,) greater or more striking, than that which we have copied above, and which may be gathered from the columns of the Registrar's account of the mortality of Boston.

Whether similar results would be obtained, if similar investigations were made with regard to New York, Philadelphia, and other cities in the United States, we do not know. Not having the means at command, by which to institute similar comparisons, we will hazard no conjectures upon the matter.

It is time to return from this digression. The sanitary movement does not merely relate to the lives and health of the community ; it is also a means of moral reform. It appeals to the philanthropist, and to Christians of every sect. The ultimate connection between filth and vice has been noticed

by all writers upon this subject. Outward impurity goes hand in hand with inward pollution, and the removal of the one leads to the extirpation of the other. Cleansing the body is not more a symbol, than it is a means and a condition, of inward purity. Wesley was wont to say, that cleanliness stands next to godliness, and there is scripture authority for putting clean hands before a pure heart. We do not mean that building proper sewers and drains, clearing the cellars, ventilating the houses, and diminishing the excessive crowding of the population in the Broad Street district would put an end to all the vice and crime that lurk there. But no one can doubt that such a course would materially lessen the degrading and disgusting vices, and alleviate much of the misery, which prevail in that section of the city.

A series of able articles appeared not long since, in the *London Morning Chronicle*, upon the condition of the poor. They presented a frightful picture of the poverty, utter absence of self-respect, degradation, filth, and vice of the laboring classes. The details are too heart-sickening and disgusting to be reproduced here. It is difficult to conceive of humanity sunk so low as was represented in these reports. We only allude to them now on account of the constant and abundant evidence which they give of the connection of vice with filth, of spiritual with physical uncleanness. It is undeniable that the moral condition of a community is typified in the character of their habitations. The *Edinburgh Review* for April, 1850, gives the following graphic picture of the sure and gradually demoralizing influence of such polluted dwellings upon one unaccustomed to them.

“There can be no sight more painful, than that of a healthy, rosy, active countrywoman brought to one of these dwellings. For a time there is a desperate exertion to keep the place clean; several times in the forenoon is the pavement in front of the house washed, but as often does the oozing filth creep along the stones, and she feels at length that her labor is in vain. The noxious exhalations infuse their poison into her system, and her energies droop. Then she becomes sick, and cleanliness being impossible, she gets accustomed to its absence, and gradually sinks into the ways of her neighbors. The art of concealing dirt is substituted for the habit of cleanliness; she becomes a dirty, debilitated slattern, followed by sickly, scrofulous, feverish children; and she falls through successive stages of degradation, till, physical wretch-

edness having done its worst, she reaches the lowest of all, that in which she has ceased to complain. The fate of the children is, if possible, more heart-breaking. All idea of sobriety, all notion of self-respect, all sense of modesty, all instinct of decency is nipped in the bud ; they congregate in masses and mix with the worst vagrants. At last some dreadful fever forces on the notice of the public the existence of their squalid dens of misery ; such as those in the Saffron Hill district, — where twenty-five people were found living in a room sixteen feet square, — where a man and his wife, and four children, occupying one room, took in seven lodgers, — and where one house contained a hundred and twenty-six people, and only six or seven beds. These people save nothing, but invariably spend all they earn in drink ; and with that precocious depravity too surely evinced by human beings when herded together like beasts, the young of both sexes live together from the ages of twelve and thirteen years.”

This is an appalling picture ; and yet the same language might be used without exaggeration, of parts of Fort Hill and other places in Boston. Human beings, men, women, and children, — boys and girls, — living together like swine, and like swine wallowing in filth, and, worse than swine, steeped in vices that we dare not mention, may be seen by any one who will visit Burgess Alley and other localities, in the Broad Street district. Let us be thankful for one exception, however ; the wrecks of only a few rosy-cheeked American women can yet be found there.

It is difficult to find an adequate remedy for evils of such magnitude. Evidently, the first thing to be done is to ascertain their utmost extent. They should be exposed in all their vileness. The wound must be probed to the bottom, however painful or disagreeable the operation, before a cure is attempted. Hence the great importance of an accurate registration of every case of death, with the attendant circumstances of age, sex, locality, disease, etc. These are a portion of the facts by which the sanitary condition of a people is made known ; and without which, sanitary science is impossible. An accurate record of births and marriages is equally indispensable. We have not space now to point out the unerring exactness with which the births, marriages, and deaths of a community indicate, by their varying proportions, its seasons of prosperity and adversity, of health and disease. Like the three quantities which a geometer demands for the

construction of a triangle, they form the three great facts, without which the sanitary condition of a people cannot be determined. Notwithstanding the registration laws, which have existed for some years in Massachusetts, the returns made under them were very deficient. Within the last few years, however, the laws have been revised, and these facts, which are so important to the welfare of the State, are at present recorded almost with the accuracy of the English registration system.

Let us now advert briefly to the economical aspect of the sanitary question. This is scarcely less important than its physical and moral bearings; and perhaps in the present age, when the *auri sacra fames* is diffused so widely, will exert the greatest influence upon the public mind.

The waste or misapplication of money produced by unnecessary sickness is probably the heaviest tax which presses upon the community. It is none the less real, because it does not come in the form of a direct impost. The expenses of sickness, of doctor's bills, nurses, medicines, and funerals, are far greater than is generally supposed; and they fall with the greatest severity upon the classes that are least able to bear them. It has been calculated that for every case of death, there are twenty-eight cases of sickness; and consequently, for every case of unnecessary death, twenty-eight cases of unnecessary sickness. Apply this rule to Boston. We have shown that there are in this city, every year, eleven hundred deaths that might be prevented. Then there are more than thirty thousand cases of unnecessary sickness in Boston every year. Now endeavor to estimate the needless expense which is thus entailed upon the community by the cost of sickness; and (in doing so) let it be remembered, that among the ill ventilated, badly drained, and crowded dwellings of the poor and filthy, disease not only enters more frequently, but abides longer, and leaves behind it more enfeebled and broken constitutions than anywhere else. Including the loss of labor attendant and consequent upon sickness, and the cost of medicines, nursing, medical attendance, and the like, we cannot be accused of exaggeration in estimating the cost of sickness at the average rate of five dollars for every case. This would give more than one hundred and fifty thousand dollars, annually, as the expense

which Boston incurs for preventable sickness. A comparison of this estimate with a similar one made, by careful inquiries, for the city of London, will show that we have kept far within the limits of the truth. In the tables of the Vital Statistics of England and Wales, the annual waste, resulting from unnecessary sickness, funerals, and labor thereby lost, reduced to an equivalent in money, is stated, for the metropolis alone, at the enormous amount of two millions of pounds sterling. This is at the rate, in round numbers, of five hundred thousand dollars, for every hundred thousand of the population of London. Estimated at the same rate, the annual loss to Boston on account of preventable sickness, would be represented by a grand total of rather more than seven hundred thousand dollars.

But this is not all. In the words of a writer, already quoted : —

“ There is another enormous item of waste or misappropriation of money, not contained in these tables ; namely, the sums squandered in the shape of defective and costly structural arrangements, above and below ground ; — in sewers, which are little better than elongated cess-pools, put down in wrong places, built of wrong materials, faulty in shape, with insufficient fall ; — in cisterns and water-butts, with their paraphernalia of pipes and ball-cocks, adapted to a limited and intermittent supply of water ; — in shops and work-shops, destitute of all means of ventilation ; — in houses and hovels, furnished with the costly and barbarous cess-pool, expensive alike to landlord and tenant. Add to these the enormous expenditure incurred by the use of hard water for soft ; by the smoke nuisance, with its double waste of fuel and soap ; and by the discharge of the refuse of towns into the sea. What these barbarisms have cost and are costing us, it would be difficult to say ; but that they amount to several millions (pounds) a year, no reasonable man can doubt. We refer our readers to the Reports of the Health of Towns Commission, and the publications of the Health of Towns Association for particulars. If the estimates appear exaggerated, let them halve or quarter every item, and there will still remain the most remarkable *exposé* ever yet made of municipal and national extravagance.”

We should be glad to give a sketch of the most important measures of sanitary reform which have been proposed ; but our limits forbid. They all, however, with various differences of detail, are alike in embracing the following circumstances as indispensable ; namely, an ample supply of good water, pure

air, and light, with sufficient drainage and sewerage, and large exercise grounds. These are the cardinal points of sanitary reform. No expense, which is necessary to secure them, is extravagant, and any arrangements, which neglect them, will in the end prove costly. The prevention of disease is much easier and more economical than its cure. It has been stated as one of the broad principles of sanitary economics, that "it costs more money to create disease than to prevent it; and that there is not a single structural arrangement, chargeable with the production of disease, which is not in itself an extravagance." Narrow streets, without proper sewers and without open spaces, and small houses destitute of sufficient ventilation and without drains, may in the first instance cost little capital, and for a short time give large dividends; but by destroying the health and lives, and impairing the productive energy of those who dwell in them, they diminish the real wealth of the community, and eventually curtail the returns of the capitalist and landlord.

We have already alluded to the comparative neglect with which the sanitary movement has been regarded in this country. Moved by the intrinsic importance of the subject, and aware of the increasing attention bestowed upon it in Europe, the Legislature of Massachusetts, in 1849, appointed a commission for the purpose of making a sanitary survey of the State. Lemuel Shattuck, of Boston, Nathaniel P. Banks, Jr., of Waltham, and Jehiel Abbott, of Westfield, were selected by the Governor and Council as Commissioners to carry out the intentions of the Legislature. The result of their labors was presented at the last session of the Legislature in a long Report, which evinces much industry, and a thorough acquaintance with the subject. We understand that the work of preparing the report was chiefly performed by Mr. Shattuck, to whom it was assigned on account of his long acquaintance with sanitary matters.

The act of the Legislature directed the Commissioners to prepare "a plan for a sanitary survey of the State, embracing a statement of such facts and suggestions as they might think proper to illustrate the subject." Under this comprehensive resolve, the Commissioners not only presented a plan for a sanitary survey, but added to it various collateral matters, which they deemed important. Thus the Report is

prefaced by a brief account of the sanitary movement abroad and at home, and followed by an appendix, which occupies more than one third of the volume. This appendix contains much valuable matter, such as the various Health Acts of Massachusetts; actual sanitary surveys of several towns in the Commonwealth; a classification of the causes of death generally adopted in registration; some account of tenements for the poor; cholera reports; atmospheric observations; and many other matters which the Commissioners wished to bring before a community where the sanitary movement was in its infancy.

The bill which the Legislature are advised to pass, is entitled "an Act for the Promotion of Public and Personal Health." It consists of forty sections, in which are described the duties of the various health officers of the State, the extent and character of their jurisdiction, their compensation and mode of election, and the penalties attached to any disregard of their regulations or decisions. A superficial reading of the act would lead one to believe that it is so complicated in its machinery and minute in its details as to be impracticable. This impression is removed by a more careful study of its provisions. It is both simple and practicable in its *essential* parts; and we hope it will divert the attention of our legislators for a season from their political strife. The Act provides for the creation of a General Board of Health for the State, and of local Boards for each town or city. The executive officer of the General Board is to be a Secretary, appointed by them, who shall receive an adequate compensation and devote his whole time to the duties of his office. Each local Board is likewise required to appoint one of their own members as a local secretary, who shall sustain to them the same relation that the general secretary does to the general Board. Provision is also made for the appointment in each town of a medical officer and sanitary surveyor, with appropriate duties. The whole system is in fact analogous to the actual organization which exists for the superintendence of the schools of the State.

The duties of the general Board, assisted by the Secretary, are to superintend the execution of the sanitary laws of the State; to decide upon sanitary questions, submitted to them by the State, by cities or towns, or the local Boards; to

advise with regard to the location and sanitary regulations of public buildings and institutions ; to superintend the taking of the census, and the registration of births, marriages, and deaths ; to perform various other duties, appertaining or incident to these, and to "diffuse as far as practicable, throughout the commonwealth, information relating to the sanitary condition of the State and its inhabitants." The local Boards are required to carry into execution, within their respective jurisdictions, the sanitary laws of the State and the regulations of the General Board, and to carry out such local sanitary measures as circumstances may demand.

We sincerely hope that this plan, or one similar to it, may soon receive the sanction of law ; and we should rejoice if Massachusetts would take the lead in this reform as she has done on so many other occasions. The duties of the proposed Secretary of the General Board of Health are similar to those of the English Registrar-General, the importance of whose labors can scarcely be over-estimated.

The plan for a sanitary survey consists of a series of measures, fifty in number, which are presented in the form of separate recommendations. In the words of the commission, "they are not of equal importance," and are not "all the useful sanitary measures which a complete and perfect plan would require." The commission do not propose that these measures should become laws at present. They are only offered to the consideration of the legislature and of the public, to be adopted whenever such a course may be advisable. The expediency of some of them may be doubted, while others are of the highest importance. Some are identical with the provisions of the proposed Health Act, and others are subsidiary to it. They are spread over a hundred and thirty-three pages of the Report, and are enforced by numerous arguments and illustrations. Our remarks have already reached a length which precludes us from entering into a close examination of them ; we can only commend a few of the most important to the careful attention of our readers.

"We recommend that tenements for the better accommodation of the poor be erected in cities and villages."

"We recommend that public bathing houses and wash houses be established in all cities and villages."

“ We recommend that, whenever practicable, the refuse and *sewage* of cities and towns be collected and applied to the purposes of agriculture.”

“ We recommend that measures be taken to prevent, as far as practicable, the smoke nuisance.”

These are important measures. Fortunately they have already been submitted elsewhere to the test of experience; and it has been shown that they can be carried into effect, not only as measures of sanitary reform, but as offering to the capitalist opportunities for profitable investment. Large buildings, containing tenements for the poor, have been erected in some of the cities of England and of the continent, in which two or more rooms are occupied by single families, according to their means. These buildings are substantial, well ventilated and drained, supplied with an abundance of water and light, and provided with out-houses in such a way as to secure individual decency and self-respect. The rent which the occupants pay is not greater than what other families of the less fortunate poor are obliged to give for a part of some miserable hovel, or for a portion of a room, in a crowded, undrained, filthy house, where the atmosphere is poisoned within and without, both morally and physically. The property invested in these tenements, which are called “model lodging-houses,” has proved to be as safe and profitable as any investments, except the best. For the proof of this assertion, we refer our readers to the Appendix of the Report of the Commission, and particularly to Dr. Simon’s Report upon dwelling-houses for the better accommodation of the London poor. We are satisfied that by the erection of model tenements for the poor, a vast benefit would be conferred upon the community, as well as upon the poor themselves, and that capital so invested would yield a fair return. The whole matter commends itself with peculiar force to the wealthy and philanthropic portion of our community.

Public baths were established by the corporation, in Liverpool, in the year 1842. They contain warm and cold, shower, plunge, and vapor baths, with every grade of comfort and elegance. The price varies from about two cents for the cheapest bath to twenty-five cents for the dearest. They have proved to be successful both as an investment and as a source of public comfort and health. Public wash-houses

for the poor have also been established in various parts of Great Britain. They are provided with fuel, boilers, and all the necessary apparatus for washing and drying. Each washer-woman pays one penny (about two cents) for the use of the tubs, water, drying apparatus, &c., for six hours. The washing houses, like the baths, have been in every way successful, and are important additions to the comfort and subsistence of the poor. The sanitary advantage of obliging all manufactories and other establishments to consume their own smoke, and of applying the refuse and *sewage* of cities and towns to agricultural purposes, is too obvious to need illustration; but the economy of the measure, or rather the extravagance of neglecting it, has not been demonstrated until lately. These are practical and important matters, and the Commission have done well in directing public attention to them.

The Commission advise, "that in laying out new towns and villages, and in extending those already laid out, ample provision be made for a supply, in purity and abundance, of light, air, and water; for drainage and sewerage, for paving and for cleanliness." In this country, where new towns spring up so rapidly, and old ones seem to possess the power of indefinite extension, the manner of laying out streets and sewers becomes of great moment. Our population is fast becoming dense. Villages are growing into towns, and towns into cities, and cities are constantly extending their borders. In this rapid development, the manner of growth has been unfortunately confided to private interest. In most instances, there have been no general plans; and where general plans have existed, they have been suggested by the convenience or interest of the landed proprietors. Thus the grade, width, and direction of streets have been determined by an interested person, and not with any reference to the necessities of an ultimately dense population. Courts are built, closed at one end, and often at both ends, with a single narrow entrance at the side. Sometimes, for the purpose of economizing space and obtaining large rents, courts are built within and beyond courts, without regard to sanitary principles; they are entered by narrow and arched passage ways, and when densely inhabited, are filled with a stagnant and pestiferous atmosphere. For a time, in the embryo stage of a town's exist-

ence, these retired courts and alley ways are not unpleasant or unhealthy ; but as the population increases, they become abodes of filth and centres of disease and contagion. A far-seeing economy would prevent this, by taking into view the future necessities of a large population, as well as the temporary interest of a few individuals. The beneficial effect of this policy, if generally adopted, upon the comfort, health, productive energy, and wealth of the community for future generations, would almost exceed calculation. In reality, the subject is not so much a matter of economy, or even of health, as of imperious duty.

The Commissioners further recommend "that the general management of cemeteries and other places of burial, and of the interment of the dead, be regulated by the local Boards of Health." The subject of intramural burials has lately occupied a considerable share of public attention, and we feel assured that public opinion is taking a right direction with regard to them. The fact that noxious exhalations and deleterious gases rise and spread from graveyards, carrying poison and death with them, is now well known. It has also been discovered, that the respect for the bodies of the dead, which our tenderest feelings demand, does not conflict at all with a proper regard for the health of the living. Intramural burials, even when the body is deposited beneath the sacred aisles of the sanctuary, are often not less revolting than they are injurious. It is not more in accordance with the laws of sanitary science than with the holiest sentiments of our nature, that the departed should rest, not by the side of crowded thoroughfares, where the idle laugh and profane oath go up to Heaven on the same breath that carries the prayer of the mourner and bereaved, but in retirement and solitude, away from the haunts of busy men, where Nature, by her manifold agencies, shall resolve the body into dust, with a blessing instead of a curse to the living.

Another recommendation of the Commission is, "that persons be specially educated in sanitary science, as preventive advisers as well as curative advisers." This includes, directly or indirectly, all the rest. It strikes at the root of the whole matter. Disease can often be prevented, and rarely cured. The world has yet to learn that, in medicine as in morals, prevention is far easier and better than cure. When disease

has fairly commenced its attack, the physician can do little else, with his whole battery of drugs, from calomel to thoroughwort, than watch the progress, mitigate the violence, and alleviate the distress of the struggle; and when it must terminate fatally, he can "smooth the pathway to the tomb," making the passage thither less painful both to the dying and the bereaved. But if disease cannot be cured, it can often be avoided and prevented. This is what should be done; and if this recommendation were adopted, and men were in the habit of seeking advice and information with regard to their habitations, occupation, diet, etc., so as to learn, when well, the art of preserving health, we have no doubt that an important and beneficial influence would be exerted upon the sanitary condition of the community. Hitherto, such advice has not been often sought, or much valued. Its importance, however, is daily becoming more apparent; and we hope the time is not far distant, when men will give as much heed to the advice which would prevent a fever, as to that which *seemingly* cures it.

There are many other points in this Report which we should be glad to discuss, and some which we might be inclined to criticize; but we feel that our remarks should be drawn to a close. Its appearance marks a new epoch in cis-Atlantic sanitary legislation, and we hope it may be the harbinger of a comprehensive and enlightened system of sanitary reform. We commend the Report to the consideration of the philanthropists, economists, and legislators of our country, with the confident belief, that if the principles which it presents should receive the sanction of public opinion and the authority of law, they would prove of inestimable advantage to the whole community. To adopt the words of the Commission: —

"We believe that the conditions of perfect health, either public or personal, are seldom or never obtained, though attainable; — that the average length of human life may be very much extended, and its physical power greatly augmented; — that in every year, within this Commonwealth, thousands of lives are lost which might have been saved; — that tens of thousands of cases of sickness occur, which might have been prevented; — that a vast amount of unnecessarily impaired health and physical debility exists among those not actually confined by sickness; —

that these preventible evils require an enormous expenditure and loss of money, and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental and moral, which might be avoided; and that measures for prevention, will effect infinitely more, than remedies for the cure of disease."

- ART. VI. — 1. *Annals of India for the Year 1848.* By GEORGE BUIST, LL. D., F.R.S., &c. Bombay: 1849. 8vo. pp. 82 and xciv.
2. *Correspondence, Deed, Bye-Laws, &c., relating to "Sir Jamsetjee Jeejeebhoy's Parsee Benevolent Institution," established in Bombay, 1849. Together with a Goojrattee Translation of the Deed and Bye-Laws.* Published by order of the Panchayet of the Institution. Printed at the Times Press: Colaba. 1849. pp. 105 and 113.

OF all the cities of the East, from Constantinople to Calcutta, Bombay is the least Oriental. All other eastern cities have a peculiar, distinctive, character of their own depending upon that of their people. A certain degree of special sameness belongs to each. But Bombay is a city of patch-work. Its streets have the appearance of a fair. The scene is so animated and gay that it seems like the scene in a pantomime, and you expect it to vanish even while you are looking at it. There is no other place in the world where the representatives of so many nations and so many religions are gathered together. Bramin and Buddhist, Mussulman and Parsee, Jew and Christian jostle each other at every turn. There is the Persian merchant, who has come from Ormuz, or Busso-rah, with a cargo of horses or of dates; the Arab trader, with his long, dyed beard and his grave face, meditating how he may best sell his coffee or his myrrh; the Bedaween, tempted from the desert across the ocean by the hope of gain, but preserving in the midst of the city his wild look and his desert dress, — the yellow-fringed kerchief hanging down from beneath the folds of his tightly rolled turban upon his long bur-noose of goat's hair; the Armenian, bearing the mark of his